

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

AD-A261 237



1b. RESTRICTIVE MARKINGS

3. DISTRIBUTION / AVAILABILITY STATEMENT

UNLIMITED

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

5. MONITORING ORGANIZATION REPORT NUMBER(S)

DOD POP TR/AYD 92-024

6a. NAME OF PERFORMING ORGANIZATION

PACKAGING DIVISION, AED

6b. OFFICE SYMBOL

(if applicable)
SMCAR-AEP

7a. NAME OF MONITORING ORGANIZATION

6c. ADDRESS (City, State, and ZIP Code)

U.S. ARMY ARDEC

PICATINNY ARSENAL, NJ 07806-5000

7b. ADDRESS (City, State, and ZIP Code)

8a. NAME OF FUNDING / SPONSORING
ORGANIZATION8b. OFFICE SYMBOL
(if applicable)

9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

N/A

8c. ADDRESS (City, State, and ZIP Code)

10. SOURCE OF FUNDING NUMBERS

PROGRAM
ELEMENT NOPROJECT
NOTASK
NOWORK UNIT
ACCESSION NO

11. TITLE (Include Security Classification)

PERFORMANCE ORIENTED PACKAGING TESTING OF SAFETY AND ARMING ASSEMBLIES FOR THE BLU 91/B AND
BLU 92/B MINES PACKED 90 PER WOOD BOX.

12. PERSONAL AUTHOR(S)

DZURY, CHRIS

13a. TYPE OF REPORT

Final

13b. TIME COVERED

FROM _____ TO _____

14. DATE OF REPORT (Year, Month, Day)

1992 November 30

15. PAGE COUNT

4

16. SUPPLEMENTARY NOTATION

SEE ATTACHED

17. COSATI CODES

FIELD

GROUP

SUB-GROUP

18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This report contains the test results and test procedures for Performance Oriented Packaging Tests performed on the pack for both the Safety and Arming Assembly for the BLU 91/B Mine and the BLU 92/B Mine. This pack consists of 90 Safety and Arming Assemblies in a fiberboard box inner pack with a wooden box outer pack. Both Safety and Arming Assemblies are packed in the same way and have the same Proper Shipping Name and Identification Number which is "Fuzes, Detonating UN 0257".

93-01652



20. DISTRIBUTION / AVAILABILITY OF ABSTRACT

☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS

21. ABSTRACT SECURITY CLASSIFICATION

UNCLASSIFIED

22a. NAME OF RESPONSIBLE INDIVIDUAL

STEVE RUFFINI

22b. TELEPHONE (include Area Code)

(201) 724-2515

22c. OFFICE SYMBOL

SMCAR-AEP

1. DATA SHEET

Container:

Type: Box

UN Code: 4C
Specification Number: PPP-B-621
Material: Wood
Capacity: 6378.75 cubic inches
Dimensions: Inside: 26 1/4 X 20 1/4 X 12
Tolerance: $\pm 1/8$
Packing and Marking Drawing: 9329607
Gross Container Weight: 48.5 lbs
Closure Method (Method/Type): Metal Strapping

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

Product 1:

Name: Safety and Arming Assembly for the BLU 91/B Mine
NSN: 1345-01-153-2816
Proper Shipping Name: Fuzes, Detonating
Identification Number: UN 0257
Physical State: Solid
Quantity per Container: 90

DTIC QUALITY INSPECTED 3

Product 2:

Name: Safety and Arming Assembly for the BLU 92/B Mine
NSN: 1345-01-204-4282
Proper Shipping Name: Fuzes, Detonating
Identification Number: 0257
Physical State: Solid
Quantity per Container: 90

2. BACKGROUND:

This report contains the testing and test results performed on the pack for both the Safety and Arming Assembly for the BLU 91/B Mine and for the Safety and Arming Assembly for the BLU 92/B Mine. Both Safety and Arming Devices are packed fifteen (15) S & A's per fiberboard support, six (6) supports (90 S & A's total) per fiberboard box. A barrier bag is used either inside or outside of the fiberboard box for moisture protection. Each support consists of a flat section of fiberboard with fifteen S & A's laid on top. A plastic "blister" is placed on top of each S & A for protection and this whole configuration is sealed inside a skin packaging. The six supports are stacked inside the fiberboard box with fillers between each support and surrounding the stack to insure a tight pack and item protection. A desiccant bag is placed on top of each support for additional moisture protection. The sealed box is placed into a wood box which is sealed with metal strapping.

For purposes of testing, the fiberboard box was packed with steel weights and filler. After the the wood box was packed out, the final weight of each box tested was 68 lbs. The wood box was sealed with metal strapping.

3. TESTING AND RESULTS:

The following tests were conducted in accordance with Code of Federal Regulations Title 49:

a. Stacking Test:

Test No. 1:

Two boxes were placed under a load of 1580 lbs. for 24 hours. This exceeded the POP requirement which is the weight a box would see at the bottom of a stack ten feet high. There was no leakage or spillage of contents from the wood box.

Test No. 2:

One box was placed under a load of 770 lbs. for 24 hours. This exceeded the POP requirement which is the weight a box would see at the bottom of a stack ten feet high. There was no leakage or spillage of contents from wood box.

b. Loose Cargo Test:

Test No. 1:

Two boxes, which were stack tested, were loose cargo tested for 1 hour on a table with a metal floor and wood constraining walls. There was no leakage or spillage of contents from the wood box.

Test No. 2:

One box, which was stack tested, was loose cargo tested for one hour on a loose cargo tested on a loose cargo table with a metal floor and wood restraining walls. There was no leakage or spillage of contents from the wood box.

c. Drop Testing:

One box, which was stack tested and loose cargo tested, was drop tested onto a metal surface from four feet in the following orientations:

1. top
2. bottom
3. long side
4. short side
5. directly on a corner

There was no leakage or spillage of contents from the wood box.

4. CONCLUSION:

This packaging configuration has successfully met the requirements of Performance Oriented Packaging Testing (no leakage or spillage of contents from the packaging) and is considered safe for domestic and international shipment.